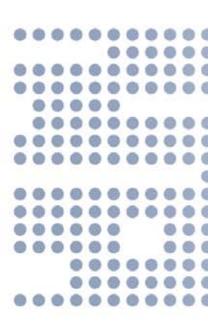
By Colleen Swain and David Edyburn

Social Justice Choice or Necessity?





When a teacher chooses whether to use technology in the classroom as a means of engaging students in challenging curriculum, should the decision be considered simply a personal choice?

Given the power of instructional technology and the ubiquitous nature of technology in society and the workplace, what are the social implications associated with teachers' decisions to use, or not use, technology to enhance teaching and learning? Despite current U.S. educational goals and the documented effect of the achievement gap, little attention has focused on critical issues associated with the use of instructional technology as a social justice tool. This article will explore the social justice implications of instructional technology and provide educators with a framework for understanding the effects of their decisions in using instructional technology in the classroom.

A Social Justice Issue

What does social justice mean? In his book, Principles of Social Justice, David Miller states "Very crudely, I think, we are discussing how the good and bad things in life should be distributed among the members of a human society." Access to instructional technology is not enough for today's students. Students must be technologically fluent and able to use technology to solve problems with various sources of information, create new representations of their knowledge, and enhance their learning through the diverse strategies afforded by technology. Students without these skills are at a decided disadvantage in terms of future educational and employment opportunities in our global, technological, and information-based society.

> Our students will most likely obtain jobs we cannot even imagine. In 1992, the U.S. Department of Labor's SCANS report noted that at least 80% of all jobs in the next two decades would require workers to be technologically fluent. This means

if workers are not well prepared in using technology to succeed in the workplace, they will be forced to take low-paying jobs with limited potential for advancement.

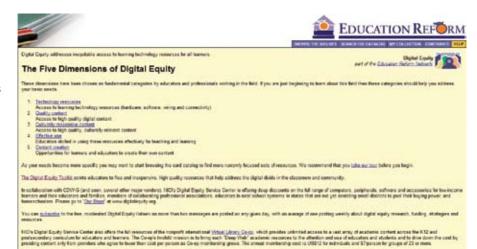
At many universities, admission standards for incoming freshman continue to rise. Even if an incoming freshman is highly gifted, if he or she is not extremely familiar with using technology in the learning environment, that student is at a decided disadvantage the second he or she steps onto the university or college campus.

An important aspect of adopting a framework of social justice when using technology in the classroom is for the educator to be reflective about how it is used in the classroom.

Examining the Framework

Although the following examples provide poor instances of technology use from a social justice perspective, they do clearly illustrate important concepts in the framework for using a social justice lens to view the effectiveness of technology use in the classroom.

- Students only use technology to assess their comprehension of books or to prepare for the state standardized tests using drill-and-practice programs.
- Students are expected to hand-write the first draft of a report so they can type it into the computer when the class goes to the computer lab.
- · Only students who have demonstrated mastery of the basic factual content of a unit are allowed to use technology applications for problem solving and simulation to expand their understanding of the concept.
- The teacher asks his or her students to share use of computers in the classroom or learning center but does not structure the activity to ensure that all students enjoy equal hands-on access to the computers. Left to themselves, the boys end up obtaining twice as much hands-on time as the girls.
- The schools' teachers assign students with lower grades or achievement scores to use computers to develop such "vocational" skills as keyboarding and word processing while engaging more highly achieving students in using the computers for more advanced problem solving.



The National Institute for Community Innovations hosts the Digital Equity Portal, an excellent resource for getting started.

What framework can be used when thinking about technology use in the classroom from a social justice perspective? We believe that technology is equitably implemented when it is:

- available
- used routinely
- used in ways that reflect real-world applications of interest, complexity, and power
- used to enhance learning opportunities for all students
- used to monitor teacher/students progress over time.

Gaining Classroom Access

Although computer access in U.S. classrooms continues to improve, there are still classrooms that have no or limited access. So how can educators work to change this? One of the most powerful resources is the Digital Equity Portal and Toolkit (For this and other URLs, see Resources on page

18). The Digital Equity Portal has more than 150 strategies and resources for addressing key aspects of the digital divide. Many of the associated issues (access to hardware, software, digital content, connectivity, and support) do have solutions. There are computer refurbishment Web sites where schools can obtain computers and also ways to get deeply discounted computers. There is also a growing collection of free or open source software available. Educators must search for ways to make instructional technologies accessible in the class and a normal part of the learning process. The free Digital Equity Toolkit contains the "greatest hits" of such practical strategies and any educator can recommend a resource to the toolkit by e-mailing digitalequity@iste.org. You can also conduct an audit of the readiness level of your school by using the School Technology and Readiness (STaR) chart.

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www.iste.org/sigtel/awards/



Locating Powerful Resources

Once you've gained access to technology, you need resources for using it effectively. There are a variety of excellent instructional technology resources, but it is often time-consuming and difficult for educators to locate them. The Digital Equity Portal and Toolkit mentioned earlier is an excellent place to start a search for exemplary digital resources. It is critical that students use instructional technology to learn concepts deeply and have the opportunity to learn and present their understanding using a variety of multimedia formats.

New resources continue to become available to educators, so it is important to evaluate each resource in terms of how it allows students to learn the concept deeply, enhances higher-order thinking opportunities, presents their knowledge in ways that mesh with strengths, and furthers educational and future workplace opportunities.

Another important capacity some learning technologies possess is to assist students with special learning needs or impairments. Instructional and assistive technologies can greatly benefit struggling readers and students with language difficulties, computational problems, and so on. For example, students who have difficulty reading could use an instructional technology to "erase" the area of weakness. This is significantly related to the goals of social justice by providing students with opportunities previously closed to them.

Reflection

An important aspect of adopting a framework of social justice when using technology in the classroom is for the educator to be reflective about how it is used in the classroom. Keeping a journal or making careful notes in lesson plans on the ways instructional technologies were used is a way to help examine the use in your classroom. As you monitor activities,

consider whether the instructional strategies used in your lesson use technology for higher-order thinking, provide your students with meaningful interaction with the content, or allow students to use technology keyed to their learning style or impairment.

Another strategy is to survey your students on the experiences they have throughout the school day. This is particularly important if your students are with you for a portion of the day. Enabling every student to have engaging and powerful experiences with

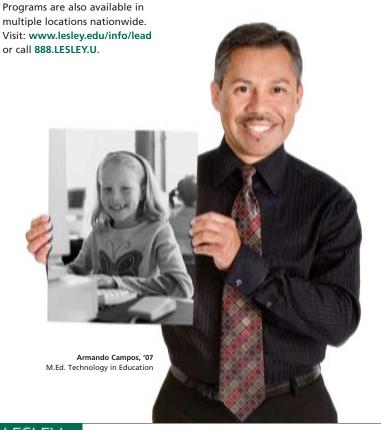
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Instructional Tools in Educational Measurement and Statistics (ITEMS) for School Personnel

Funded by the National Science Foundation

Directed by Professor Rebecca Zwick, Gevirtz Graduate School of Education, UC Santa Barbara

We seek teachers and school administrators to help us evaluate our materials in March and April 2007.

Each participant will receive a Borders gift certificate for viewing the presentation and taking the quiz (45 minutes total).

To view our earlier instructional modules, get more information, or sign up to participate, contact Liz Alix at 805-893-2502 or items@education.ucsb.edu, or go to http://education.ucsb.edu/items/. Enabling every student to have engaging and powerful experiences with multiple types of instructional technologies throughout his or her school experience can decrease the digital divide.

multiple types of instructional technologies throughout his or her school experience can decrease the digital divide. Lastly, you can find out discreetly which of your students do and do not have access to computers and the Internet at home and then point those who lack these resources to places in the community where they can turn to gain better access (e.g., public library, community technology center, Boys and Girls Club).

Conclusions

To date, decisions about if, when, and how to use technology in the classroom have been viewed as personal decisions by individual teachers. However, when teachers decide not to use technology in their teaching and learning environments, students are disadvantaged. Because the uses of instructional technologies in today's schools influence the opportunities for future educational and work experiences, instructional technology use in the classroom is a matter of social justice.

Teachers can influence the gap in the digital divide. If we as educators can infuse the use of instructional technology in classrooms as a component and catalyst for social justice, the educational experience for all students will change. Students can use instructional technologies to enable them to learn and demonstrate their learning in new ways, thus preparing them for an exciting and unlimited future. We hope these thoughts about and resources for social justice will assist you in your efforts to provide students with access to the critical technology tools that will define their future.

Acknowledgements

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Resources

Access

CoSN K-12 Open Technologies: http://www. k12opentech.org Digital Equity Portal and Toolkit: http:// digitalequity.edreform.net K12 Computers: http://www.k12computers.com OpenCD: http://www.theopencd.org Our Store: http://www.digitalequity.org School Technology and Readiness (STaR)

chart: http://www.iste.org/starchart.html

Assistive Technology

Kurzweil 3000: http://www.kurzweiledu.com ReadPlease: http://www.readplease.com WebMath: http://www.webmath.com

Instructional

Connecting Curriculum and Technology: http://www.iste.org/nets

MarcoPolo: http://www.marcopolo-education.org Read, Write, Think: http://www.readwritethink.org TeachersFirst.com: http://www.teachersfirst.com Web Inquiry Projects: http://edweb.sdsu.edu/ wip/examples.htm

Webquest Portal: http://webquest.org



Colleen Swain is an associate director and associate professor at the University of Florida. She works in the areas of curriculum and instruction with special emphasis on culturally responsive instruction

and using technology in the classroom with a social justice perspective.



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hance teaching and learning.

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